THE SOCIAL IMPACT OF THE QUINOA BOOM IN THE BOLIVIAN SOUTHERN HIGHLANDS. REFLECTIONS ON THE EVOLUTION OF THE LOCAL PEASANT ECONOMY.

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Preliminary draft –
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ABSTRACT

This contribution presents – under a sociological perspective – a study regarding the analysis of the social impact that the explosion in the international demand for quinoa has had in the quinoa producing communities in the Bolivian Southern Highlands (the Altiplano) by taking into account the effects of the shift “from neglected grain to cash-crop” on the evolution of the local peasant economy. The study is based on data collected through the use of qualitative interviews and the administration of a questionnaire addressed to a sample of 60 quinoa producers of the area of Salinas de Garcia Mendoza, Llica and Colcha K. Traditionally, in the Altiplano, the production activities were organized following the system of the “aynuqa” in order to meet not only private-family interests but also collective aims. The aynuqa system allowed the communities to have both control over the use of natural resources, and a common mechanism to know and meet the need of the peasant families who based their livelihoods on agriculture and pastoralism. The agricultural labour was mainly non-wage labour and it was supplied by the household members or, if the family workforce was not enough, by the wider peasant community through a mutual exchange of work, called ayni. The production process was oriented in first instance to self-consumption and then to the market. Nevertheless, with the recent rush to the quinoa market the peasant profile of the Altiplano started to change. This research shows how the increase of wage labour, the concentration of the land and new tendencies of land grabbing are posing elements of rupture with the past, but at the same time, with the current collapse of the price, elements of the local peasant economy are resisting in order to survive the precariousness of the commodity markets.

INTRODUCTION

In the last decades we have witnessed an exponential growth in the amount of food needed to meet the demand of a growing global population, and while now we are experiencing a period characterized by a shift towards new products which only a few decades ago belonged exclusively to niche markets, or were even unknown, today they are instead
easily available on the large distribution channels. The evolution of consumption patterns has brought on the consumers’ table, new foods, for instance organic products, exotic fruits and vegetables, and in general more healthy foods rich in natural proprieties (Goodman 2003; Diop and Jaffee 2005; Falguera et al. 2012). Agriculture as a dynamic system tries to respond to these new demands, therefore, places and modes of production are continuously reshaped and restructured within a global frame marked by a progressive increase in the urban population and a parallel decrease in the rural labour force.

Quinoa is among the new products that in less than two decades entered the diets of Western consumers (Walsh-Dilley 2013). The orientation of consumer choices and the widespread interest towards the “neglected” Andean grain – due to nutritional characteristics of quinoa, gluten-free and completed with all nine essential amino acids – have exerted a strong pressure on the Andean territories, and especially on the Bolivian Southern Highlands, the so-called Altiplano, which is the leader area in the country in terms of volumes of quinoa produced every year (Giuliani et al. 2012).

The increase in international demand led to a surge in the price of the grain and while in the period 1976-1989 the Free on Board (FOB) price per metric ton was equal to 545 USD, in 2014 it reached 5767 USD for the same amount of product (Ormachea and Ramirez 2013; Schneider 2014). Given the high profitability of quinoa, the cultivation frontier was expanded, and the highlands became a centre of attraction for new producers who, from the urban areas, arrived in the countryside.

**AIM**

In the field of social sciences, most of the works realized to date, presents almost exclusively data relating to the quinoa boom, however, in the last three years, the market conjunctures have drastically changed and while during the boom (2008-2014) the price paid to the producer rose to 2300 bolivianos (local currency) per quintal of raw product, in 2017 it dropped to 350 bolivianos. This presentation has the aim to explain which is the impact of the rise of the international attention for quinoa on the social organization of the production activities in the Altiplano, and how the local peasant economy has evolved along the course of the quinoa boom and the recent price collapse trying to understand in which way the positioning of the local quinueros on the international markets, and the exposition to an extreme volatility of the commodity circuits, have created elements of continuity and rupture with the traditional mode of production.

**MATERIALS AND METHODS**

This presentation is based on an empirical research carried out in November and December 2017 in three municipalities of the Bolivian Southern highlands, namely Salinas de Garci Mendoza, Colcha K and Llica. The study was conducted through the use of open-ended interviews and the administration of a questionnaire to 60 quinoa producers. Moreover, in order to offer an overview on the the evolution of the peasant mode of production under the progression of the quinoa economy, it has been essential to
make an historical review of the path that led quinoa to overstep the local self-consumption sphere and arrive on the global distribution chains.

AN OVERVIEW ON THE TOPIC

The region of the Southern Altiplano is divided in three agroclimatic micro-zones which, traditionally, have determined the geographical distribution of the productive activities. Before the expansion of the quinoa economy, the *pampa o planicie* — a flat area more vulnerable to the risk of droughts and frosts — was chiefly dedicated to pasture for sheep and llamas grazing; agriculture and quinoa cultivation were confined to the *ladera*, namely the first complex of mountainous parcels which preceded the area of volcanic peaks, that was used for extensive llama breeding (Laguna 2000; Barrientos et al.2017). In the rural communities under study, the agricultural production complex was managed at a communitarian level. It was based on a system of alternate uses of the agricultural parcels called *aynuqa* that regulated the equilibrium between fallow, cultivated area, and grazing land (Hervé et al. 1996; Hellin and Higman 2001). An *aynuqa* is a composition of plots ‘communally owned, but individually worked and inherited’ through the right of usufruct, where each parcel is managed in a coordinated manner in order to respect phases of crop cultivation, grazing of crop residues, fallow and grazing of regrowth and, at the same time, assure each communal household of a sufficient access to land and natural resources (Puschiasis 2009; Hellin and Higman 2001:6). This allowed producers to have both a control on the use of natural resources and a common mechanism to know and meet the need of the peasant families who based their livelihoods on agriculture and pastoralism.

Until the years 1970-1980 the production system was rooted in the internal organization of the peasant family and in the network of relationships that bound it to the rest of the community. The absence of agricultural machineries and the poor profitability of quinoa on the market — which prevented to invest in technological capital — made quinoa cultivation a labour-intensive activity. As a consequence, the household represented the centre of the input supply since the labour was not dependent on capital-labour relations but was instead provided by the family and the broader complex of parental ties and mutual exchanges. Both labour and other inputs such as seeds or fertilizers were produced and reproduced cyclically through the family-community work. The production process was intended under a subsistence logic, according to which the outcomes were partially directed to self-consumption for the sustenance of the family and the reproduction of the work force and partially reabsorbed by the production cycle and used as new inputs. This socio-productive structure conforms to what the agrarian economist Chayanov (1991) describes as peasant economy. In the Chaianovian analysis on the peasant economy, the labour mobilized in the productive unit is essentially nonwage labour thus the labour market does not govern neither its allocation nor its remuneration (van der Ploeg 2013). Nonetheless, between the 1970s and the 1980s, this scenario started to change. On the one hand, the highlands faced a huge decrease in labour force due to the fall of the internal agricultural prices and the extreme climatic variability caused by El Niño which forced many peasants to abandon the *Altiplano* for reaching the informal economy of the cities or the plantations in the lowlands; On the other hand, during the second half of the 1970s, the traditional production system of the highlands was channelled in a pathway of
transformation. A Belgian NGO committed to programs for the reduction of poverty introduced in the Altiplano the use of tractor and disc plows with the aim of implanting a model of productivist agriculture capable to maximize the use of natural resources and increase peasant’ incomes (Kerssen 2015; Trinley 2017). Despite the fact that these interventions were not specifically directed to the expansion of quinoa cultivation, considering that mechanization was possible only in flat areas, quinoa became the main product of the new wave of agricultural intensification since it was the only crop able to grow in the extreme climatic conditions of the planicies (Kerssen 2015). In the same period, the push towards an agro-industrial model met the advent of the growth in international demand for quinoa and in just few years the first cooperatives of quinoa producers (CECAOT-Central de Cooperativas Operación Tierra; ANAPQUI-Asociación National de Productores de Quinua) were created to supply the organic markets of Europe and USA (Crespo 1993; Laguna 2002; Laguna et al. 2006; Avitabile 2015).

Many comunarios (community members), encouraged by the easing of the work and the first slight increases in the price of quinoa, opted to reduce pasture area and replace pastoralism with quinoa cultivation, which had less need of labor and a greater profitability on the market. Moreover, during the rise of the quinoa economy those who had more livestock units, and a respective dominant access to the communal pastures, could – through the sale of animals – accumulate sufficient capital to buy agricultural machinery, automatically transforming their usufruct for grazing in usufruct for cultivation. They maintained their advantage of access to land, which turned out to be significantly more profitable compared to previous use, despite the land having been recognized by the community on the basis of a different land use system. In the same way families who had off-farm income or external remittances from the cities or the mining centers invested in the purchase of tractors and appropriated of communal pastures under the slogan “the land belongs to those who work it” that concretely, as in many Latin America struggles for access the land, has converted into the “land belongs to those who have the capital to access/to work it”.

RESULTS AND DISCUSSION

The introduction of agricultural machineries has led to a greater concentration of land and capital in the hands of those who had the financial capacity to invest on it. In fact, besides the possibility of cultivating large land extensions, the owners of tractors rent or sell farm machinery services to who does not have the economic availability to invest directly in technological capital. In the last twenty years this scenario has been strengthening due to the exponential increase in the price of quinoa since it allowed higher accumulation of capital and access to credit. Undoubtedly the quinoa boom has brought an economic benefit on the whole region; as emerged by the analysis of the questionnaire, the 88,30% of the respondents affirms that there has been an improvement in their economic condition thanks to the explosion of the quinoa market, only 11,70% reported that their situation remained unchanged and none of them registered a decrease. Nevertheless, through interviews it emerged that profits deriving from the sale of quinoa have been invested differently by those who had more hectares, compared to the total average of
14.3 ha, and those who were below this threshold. On the contrary, those who had a greater access to the land, oriented profits towards the purchase of agricultural machinery or the implementation of non-agricultural activities.

The survey shows that the 23.3% of the sample consisted of owners of tractors and, on average, they had 32.72 ha of land, equal to 128.8% more than the total average (14.3 ha). The percent variation rises further if we consider not the total hectares of land but only the hectares dedicated to quinoa cultivation. In this case, the entire sample in 2017 had an average of hectares cultivated with quinoa equivalent to 6.6 ha, while in the group of tractor owners it was equal to 19.27 ha, the 192% more. A similar result emerges if we correlate the tractor ownership to llama ownership. Indeed, among those who were owners of llamas but not of tractors, the average number of heads of cattle owned was 57, while for those who had both, the number reached 179 livestock units.

Ormachea and Ramirez (2013) and Laguna (2011) argue that the importance of the new figure of the tractorista (tractor driver) within the production process has encouraged the concentration of land and agricultural services in the hands of a few families of owners. During the emergence of the quinoa economy this started from a privileged condition as they could count on the availability of off-farm incomes, and today they can control, not only the agricultural services, but also part of the local system for the processing of quinoa or the transport services in the region.

In this line, the process of commodification that affect the land, also affected – even if not completely – some practices of communitarian work (Walsh-Dilley 2013). The exchange of reciprocal work, called locally ayni, has always been a strategy to cope with the lack of manpower, as well as a system for strengthening the links between families within the communities of the highlands. The ayni has been weakened because, primarily, the mechanization of agricultural work has resulted in a capitalization of it, since a price is attributed to the mechanized agricultural service (e.g. the price per hour of tractor) and its exchange depends on capital-labor relations and not on reciprocity. In fact, the forms of ayni that are practiced today mainly concern manual work. In addition, the growth of the quinoa sector attracted new agricultural labour concentrated in particular tasks of the production cycle and specific periods of the year (e.g. during the harvesting). The new agricultural workers, called jornaleros, came especially from the urban centers of the Altiplano, Oruro and Potosi, and also from La Paz. Their non-belonging to the community exempts them from fulfilling the community practices and binds them to it only through the status of asalariados (i.e. wage labour).

Within the survey sample, 96.7% declared to have contracted jornaleros during the last production cycle. They are contracted in the periods in which there is the most need and, in some cases, they almost completely replace both the labor supply of the family and of the community. The tendency of depopulation that preceded the boom has coincided with a trend of progressive erosion of the family base of the Andean agriculture as it led to an outflow of labour force which represent the main input in the production activity of the household but also the main resource in the processes of labour exchange within the community. Although part of the family, during the harvest period, often returns to rural villages, many interviewees reported that the carrying out of activities in urban centers
does not allow rural migrants to conciliate the working time with production times. This happens especially when family members have a position as a professional worker in the cities.

Nowadays after years of price increase, the Altiplano is facing a collapse in the international price of quinoa due to the national overproduction and the entry in the market of new producing countries. On the basis of the data collected, in 2017, the average price per quintal of raw product is 350 BOB. Given the low price, many comunarios are currently continuing to produce but are deciding to not enter the market. Thus, the sale to intermediaries and the commodification (of part of the total amount produced) becomes a possible, but not an obvious, outcome of the household activity. In this respect, Van der ploeg (2013:16), mentioning Paz (2006), states that ‘peasant agriculture is part of capitalism’ but ‘is "anaerobic" [...] ; it can survive without the oxygen of profit that corporate agriculture so badly needs’.

The empirical evidence shows that almost the entire sample (91,67%) think to not have any power in influencing and determining the price of the raw product, and always 91,7% considerers the price as not fair compared to labour and production costs. Here the quinoa producers are price takers since, having no formal means to differentiate their product, they are extremely vulnerable to market fluctuations (Llambi 1988). For this reason, 8,3% of the sample decided to not enter the commercialization channels, but without stopping to produce for the family-provisioning.

This corroborates the thought of Chayanov (1966) about the resistance of the peasant economy. For the author (1966:89), peasant farms can ‘continue to produce where capitalist farm stop’ and this is due to the nature of the peasant production unit. The main objective of the peasant economy is to ensure – through the agricultural activity – the livelihoods to support the family needs, therefore the economic success is not measured in terms of income or profit but in terms of goods produced (Kula 1976; Kochanowicz 1983; Galasso 1986). Goods aimed at satisfying family needs are hardly interchangeable and replaceable with others (more or less tradable, or cheaper) since their use and consumption are linked to the territory and to the local/family tradition and their quality is assessed only in relation to the need itself (Galasso 1986). In the communities under study, this becomes clear by analyzing the weekly consumption of quinoa in comparison to other staple foods. Producers in the communities under study affirmed that, in the week before the interview, 60% of the total consumption of staple foods consisted of quinoa, therefore the Andean grain was consumed more than the other two main staple foods (rice and pasta-fideo) even though the price of quinoa per kilo of finished product was significantly higher. Moreover, the 15% of the quinoa production was addressed to self-consumption.

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1 With regard to the 8.3% who said to be satisfied about the price, they are members of producer organizations. In the total sample 48.3% of farmers belongs to producer organizations, despite this, only 28.3% is currently selling quinoa to them. This happens because, although the organizations offer a higher price (it varies from 410 to 500 bolivianos), in general, they are slower in payments than intermediaries.

2 In December 2017, in Salinas de Garcia Mendoza, 1 pound of finished quinoa was sold for 10-15 bolivianos while 1 pound of fideo was sold for 3,50-4 bolivianos.
CONCLUSION

The quinoa boom for the Altiplano has been a “bubble of economic growth” which in practice has resulted in a sudden and rapid wave of reagrarianization expressed in the expansion of the cultivation frontier and in the commodification of land and labour. However, this precarious bubble went to explode when the market conjunctures started to be less favorable, posing new challenges for the future development of the quinoa sector.

What now appears clear is the need to make the local production system less vulnerable to the market trends and - basing on the opinion of producers and representatives of producer organizations - the way to reach this goal consists in distancing the quinoa of the Southern highlands from the undifferentiated markets of commodities. This means reconnecting production to the territoriality by creating a nested market where local quinoa can be a speciality; a recognizable product that does not compete on price but on quality. In this regard Meloni (2013:22) affirms that specialities are ‘highly differentiable de-standardized goods, in which the producer is price maker and can achieve a competitiveness based on factors different from the cost’. In this sense, the specificity of the product is rooted in the territory, characterized by specific environmental conditions and contextualized agricultural practices linked to the local know-how which are difficult to reproduce in external contexts.

The effort of the State and producer organizations is going in this direction; at present there are different pilot projects that aim to obtain the recognition of Denomination of Origin for the quinoa of the Southern Altiplano as a useful tool not only to relaunch the quinoa sector but also to restart the economy of an entire territory on an endogenous basis. Therefore, the future analysis of the impact of these initiatives will be crucial to understand in which direction is moving the agricultural development of the highlands and how peasantry is evolving between local sphere and global market.
Bibliography


